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TO: F-ARM-NPRM-COMMENTS at ARM  
Subject: Docket #28293 NPRM 95-12

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Subject: Comments concerning NPRM 95-12, Docket No. 28293

TO:  
Federal Aviation Administration  
Office of the Chief Counsel  
ATTN: Rules Docket (AGC-200) Docket No. 28293  
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FROM:  
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Dear Sir or Madam;

The following comments to NPRM 95-12, Operational and Structural Difficulty Reports are submitted for your consideration:

My comments should be prefaced with a little description of my qualifications and experience concerning the subject data. For the past five years I, and the company I founded, have been engaged primarily in the analysis and distribution of aviation safety and mechanical reliability data the principal source of which is the FAA Service Difficulty Reporting System databases. I maintain complete copies of these databases and have developed software tools which allow more efficient and effective retrieval of data. My principal customers are accident investigators and safety departments of major airlines, aviation manufacturers, insurance underwriters, and numerous headquarters and regional offices of the Federal Aviation Administration.

Since the FAA has maintained little documentation of these databases I have been fortunate in having the opportunity to interview, and hopefully learn from, several now retired FAA employees who originally designed this system. In addition I have traced the regulatory evolution of this program from it's development by the Flight Safety Foundation in the late 1960's through numerous modifications.

With that background, my principal comment is that the proposed changes encompassed in this NPRM appear to have been made in good faith by persons who had little to no knowledge of the overall Service Difficulty Reporting Program. Since several proposals are completely unrealistic and unworkable while others have previously been tried and discarded. If adopted in it's entirety this NPRM will completely undo all the positive evolution of this program and totally waste the historical data which is the principal strength of this program.

A major shortcoming of this NPRM is that it completely overlooks the ramifications of these changes on the voluntary reporting by operators of aircraft not subject to parts 121, 125, 127, or 135. This non-mandatory reporting comprises a significant number of high quality

reports and is a major indicator of fleet-wide service difficulties. Elimination of this channel would severely limit the FAA's ability to correctly evaluate the need for airworthiness directives and to track product certifications. In addition, there appears to have been little apparent consideration of these changes on the SPAS system. This, in it's self should be justification to withdraw this NPRM to consider the ramifications of these changes on the general aviation fleet and the SPAS system.

Concerning Sections 121.703, 125.409, 127.313, and 135.415:  
The Service Difficulty Reporting database collects data from a variety of sources with a variety of names - Mechanical Reliability Reports, Malfunction or Defect Reports, etc. Service Difficulty Reports is the best, and certainly best known, title for these collected sources especially unless the intent is to discard the existing historical data. Changing the name can only confuse the persons this system relies upon for submission of data.

Concerning the changes to specific reporting requirements:  
These proposed changes will invalidate the use of data currently contained in these databases for any sort of statistical analysis and certainly adversely affect the SPAS system. In addition, the absence of a definitive standard for the submission of required reports will only continue the current inconsistencies in reporting.

I suggest that the current reporting requirements of part 121.703 (and comparable paragraphs of parts 125, 127, and 135) be continued with the following modifications:  
1) Reports concerning components and systems which are not desired should be eliminated or changed to discretionary rather than mandatory reporting. For example, collection of reports concerning emergency evacuation systems contribute little, yet are more numerous than more serious occurrences.  
2) Remove the phrase "in-flight" from all specific reporting requirements. There is little justification for not reporting an identical malfunction or defect when observed during inspection and maintenance. If the data is worth collecting it must be collected consistently without regard for phase of operation.

Concerning Sections 121.703(e), 125.409(e), 127.323(e), and 135.415(e):  
This proposal would allow for the revision of previously submitted reports. This procedure was determined to be technically unfeasible years ago and was discontinued. Submission of multiple reports of a single occurrence is absolutely not a problem in the current system and to institute such a policy at this time would unduly contribute excessive complexity to the system and would reduce the reliability of any data analysis, either performed annually or by the SPAS system.

Concerning Sections 121.703(f), 127.313(f), and 135.415(f):  
The current exception of not reporting occurrences reported under part 21.3 or NTSB

regulations provide manufacturers a loophole to avoid reporting all together since there is no way to police this. This exception insures that the most serious malfunctions and defects are not compiled into a single database for meaningful comparison since part 21.3 and NTSB regulations provide completely separate and non-comparable reporting paths.

The inconsistency of the current policy is that NTSB form 6120.4, Factual Report Aviation Accident/Incident, asks if a Service Difficulty Report has been submitted on the occurrence.

Concerning Sections 121.703(g), 125.409(g), 127.313(g) and 135.415(g): A procedure should be established to permit reporting by either the operator or a repair station. However, inconsistent and contradictory reporting requirements between operators and repair stations have made this difficult. And without clear-cut lines of responsibility these reports will continue to be submitted inconsistently. I suggest that submission of these reports be the responsibility of the person returning the aircraft to service and that the appropriate maintenance record be endorsed with a report tracking number.

Concerning the proposed section 704 (and comparable paragraphs of parts 125, 127, and 135) which would create an Operational Difficulty Report: This proposal does nothing which could not be accomplished under the present system. And because of difficulties involved in deciding which report to submit it would introduce additional inconsistencies into the system and further discourage reporting. In the present SDR database it is not unusual to find the same component used in the same application classified under as many as ten different ATA codes. If the FAA is unable to consistently classify the existing reports it is unrealistic to expect all report submitters to consistently select the correct section under which to report. Keep it simple - not only could additional fields be added to the existing database, but it would be significantly more efficient and economical than creating and maintaining an additional database.

In summary, I believe this entire proposal is flawed and should be discarded because it fails to consider lessons previously learned. In addition, it would essentially terminate the present data collection system before sufficient historical data could be collected to make the replacement system useful. This proposal's attempt to fine-tune the present SDR system would throw out the baby with the bathwater. Whether by design or lack of knowledge of the present system, the result would be the same.

The present Service Difficulty Reporting Program can be made to work by more clearly targeting the data to be collected while eliminating the collection of unneeded reports. The present system of requiring submission of reports only of inflight occurrences while not collecting equally and more serious reports of deficiencies discovered during inspection and maintenance is irrational. In addition, the data collected needs to be made more accessible to better motivate voluntary compliance while simultaneously allowing enhanced enforcement.

Sincerely,

John J. Eakin